

Applicants: William C. Olson et al.
Serial No.: 09/912,824
Filed: July 25, 2001
Page 2

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A composition which comprises an admixture of two compounds, wherein: (a) one compound is an monoclonal antibody PA14 (produced by hybridoma PA14 having ATCC Accession No. HB-12610) or a portion thereof which binds to a CCR5 receptor; and (b) one compound ~~retards gp41 from adopting a conformation capable of mediating fusion of HIV-1 to a CD4+ cell by binding noncovalently to an epitope on a gp41 fusion intermediate~~ is T-20 having the amino-acid sequence set forth in SEQ ID NO:1; wherein the relative mass ratio of the compounds in the admixture ranges from about 100:1 to about 1:100, the composition being effective to inhibit HIV-1 infection of the CD4+ cell.
2. (Currently Amended) A composition which comprises an admixture of three compounds, wherein: (a) one compound is an monoclonal antibody PA14 (produced by hybridoma PA14 having ATCC Accession No. HB-12610) or a portion thereof which binds to a CCR5 receptor; (b) one compound ~~retards attachment of HIV-1 to a CD4+ cell by retarding binding of HIV-1 gp120 envelope glycoprotein to CD4 on the surface of the CD4+ cell~~ is a CD4-IgG2 chimeric heterotetramer comprising two heavy chains and two light chains, wherein the heavy chains are encoded by expression vector CD4-IgG2HC-pRcCMV having ATCC Accession

Applicants: William C. Olson et al.
Serial No.: 09/912,824
Filed: July 25, 2001
Page 3

No. 75193 and the light chains are encoded by expression vector CD4-kLC-pRcCMV having ATCC Accession No. 75194;
and (c) ~~one compound retards gp41 from adopting a conformation capable of mediating fusion of HIV-1 to a CD4+ cell by binding noncovalently to an epitope on a gp41 fusion intermediate~~ is T-20 having the amino-acid sequence set forth in SEQ ID NO:1; wherein the relative mass ratio of any two of the compounds in the admixture ranges from about 100:1 to about 1:100, the composition being effective to inhibit HIV-1 infection of the CD4+ cell.

3-42. (Canceled)

43. (Currently Amended) A method of inhibiting HIV-1 infection of a CD4+ cell which comprises contacting the CD4+ cell with an amount of the composition of any of claim 1 or 2 claims 1, 2 or 52 to 55 effective to inhibit HIV-1 infection of the CD4+ cell so as to thereby inhibit HIV-1 infection of the CD4+ cell.

44-45. (Canceled)

46. (Currently Amended) A method of inhibiting HIV-1 infection of a CD4+ cell which comprises contacting the CD4+ cell with (1) an amount of an monoclonal antibody PA14 (produced by hybridoma PA14 having ATCC Accession No. HB-12610) or a portion thereof which binds to a CCR5 receptor, and (2) an amount of ~~a compound which retards gp41 from adopting a conformation capable of mediating fusion of HIV-1 to a CD4+ cell by binding noncovalently to an epitope on a gp41 fusion intermediate~~ T-20 having

Applicants: William C. Olson et al.
Serial No.: 09/912,824
Filed: July 25, 2001
Page 4

the amino-acid sequence set forth in SEQ ID NO:1, so as to thereby inhibit HIV-1 infection of the CD4+ cell.

47. (Currently Amended) A method of inhibiting HIV-1 infection of a CD4+ cell which comprises contacting the CD4+ cell with (1) an amount of ~~a~~ monoclonal antibody PA14 (produced by hybridoma PA14 having ATCC Accession No. HB-12610) or a portion thereof which binds to a CCR5 receptor, (2) an amount of ~~a compound which retards attachment of HIV-1 to the CD4+ cell by retarding binding of HIV-1 gp120 envelope glycoprotein to CD4 on the surface of the CD4+ cell effective to inhibit HIV-1 infection of the CD4+ cell~~ a CD4-IgG2 chimeric heterotetramer comprising two heavy chains and two light chains, wherein the heavy chains are encoded by expression vector CD4-IgG2HC-pRcCMV having ATCC Accession No. 75193 and the light chains are encoded by expression vector CD4-kLC-pRcCMV having ATCC Accession No. 75194, and (3) an amount of ~~a compound which retards gp41 from adopting a conformation capable of mediating fusion of HIV-1 to a CD4+ cell by binding noncovalently to an epitope on a gp41 fusion intermediate~~ T-20 having the amino-acid sequence set forth in SEQ ID NO:1, so as to thereby inhibit HIV-1 infection of the CD4+ cell.

48. (Currently Amended) The method of any of claim 46 or 47 ~~claims 43, 46, 47 or 56 to 59,~~ wherein the CD4+ cell is present in a subject and the contacting is effected by administering the compounds to the subject.

49-51. (Canceled)

Applicants: William C. Olson et al.
Serial No.: 09/912,824
Filed: July 25, 2001
Page 5

52. (New) A composition which comprises an admixture of two compounds, wherein: (a) one compound is a CD4-IgG2 chimeric heterotetramer comprising two heavy chains and two light chains, wherein the heavy chains are encoded by expression vector CD4-IgG2HC-pRcCMV having ATCC Accession No. 75193 and the light chains are encoded by expression vector CD4-kLC-pRcCMV having ATCC Accession No. 75194; and (b) one compound is T-1249 having the amino-acid sequence set forth in SEQ ID NO:6; wherein the molar ratio of the compounds in the admixture ranges from about 10:1 to about 1:10, the composition being effective to inhibit HIV-1 infection of the CD4+ cell.
53. (New) A composition which comprises an admixture of two compounds, wherein: (a) one compound is monoclonal antibody PA14 (produced by hybridoma PA14 having ATCC Accession No. HB-12610) or a portion thereof which binds to a CCR5 receptor; and (b) one compound is T-1249 having the amino-acid sequence set forth in SEQ ID NO:6; wherein the molar ratio of the compounds in the admixture ranges from about 10:1 to about 1:10, the composition being effective to inhibit HIV-1 infection of the CD4+ cell.
-
54. (New) The composition of any of claims 1, 2 or 53, wherein the PA14 antibody or portion thereof is a humanized antibody or portion thereof.
55. (New) The composition of any of claims 1, 2 or 53, wherein the PA14 antibody or portion thereof is a human antibody or portion thereof.
56. (New) A method of inhibiting HIV-1 infection of a CD4+

Applicants: William C. Olson et al.
Serial No.: 09/912,824
Filed: July 25, 2001
Page 6

cell which comprises contacting the CD4+ cell with (1) an amount of a CD4-IgG2 chimeric heterotetramer comprising two heavy chains and two light chains, wherein the heavy chains are encoded by expression vector CD4-IgG2HC-pRcCMV having ATCC Accession No. 75193 and the light chains are encoded by expression vector CD4-kLC-pRcCMV having ATCC Accession No. 75194, and (2) an amount of T-1249 having the amino-acid sequence set forth in SEQ ID NO:6, so as to thereby inhibit HIV-1 infection of the CD4+ cell.

57. (New) A method of inhibiting HIV-1 infection of a CD4+ cell which comprises contacting the CD4+ cell with (1) an amount of monoclonal antibody PA14 (produced by hybridoma PA14 having ATCC Accession No. HB-12610) or a portion thereof which binds to a CCR5 receptor, and (2) an amount of T-1249 having the amino-acid sequence set forth in SEQ ID NO:6, so as to thereby inhibit HIV-1 infection of the CD4+ cell.

58. (New) The method of any of claims 46, 47 or 57, wherein the PA14 antibody or portion thereof is a humanized antibody or portion thereof.

59. (New) The method of any of claims 46, 47 or 57, wherein the PA14 antibody or portion thereof is a human antibody or portion thereof.